



WHAT IS CLAIMED IS:

- 1. A polyoxymethylene resin composition which comprises (I) 100 parts by weight of a polyoxymethylene polymer and (II) 1-200 parts by weight of a thermoplastic elastomer having a main dispersion peak temperature of $-30^{\circ}\mathrm{C}$ to $+50^{\circ}\mathrm{C}$ in a tan δ curve obtained by the measurement of viscoelasticity and having a number average molecular weight of 10,000 - 500,000.
- A polyoxymethylene resin composition according to claim 1, wherein tan δ of the thermoplastic elastomer which is obtained by the measurement of viscoelasticity at 23° C is not less than 0.2.
- A polyoxymethylene resin composition according to claim 1, wherein the polyoxymethylene polymer is a polyoxymethylene copolymer having oxymethylene groups as main recurring units and containing oxyalkylene groups having 2 or more carbon atoms in an amount of 0.1 - 5 mole % based on the total oxymethylene groups.
- A polyoxymethylene resin composition according to claim 1, wherein the thermoplastic elastomer is a styrene elastomer.
- A polyoxymethylene resin composition according to claim 4, wherein the styrene elastomer comprises a polymer segment (a) comprising a vinyl aromatic monomer having a number average molecular weight of not less than 2,500 and a polymer segment (b)





comprising isoprene or isoprene-butadiene and containing not less than 20% of 3,4-bonds and 1,2-bonds.

- 6. A polyoxymethylene resin composition according to claim 5, wherein the styrene elastomer has at least two polymer segments (a).
- A polyoxymethylene resin composition according to claim 1, wherein the polyoxymethylene polymer is a polyoxymethylene block polymer obtained by chain transferring a polymer containing at least one of hydroxyl group, carboxyl group, amino group, ester group and alkoxy group and having a number average molecular weight of not less than 400.
- 8. A polyoxymethylene resin composition according to claim 1, wherein the polyoxymethylene polymer is an polyoxymethylene block copolymer represented by the following formula (1) which has a number average molecular weight of 10,000 500,000 and comprises a polyacetal segment and a hydrogenated polybutadiene segment hydroxyalkylated at both ends having a number average molecular weight of 500 10,000:

$$A-O \xrightarrow{R^1} B \xrightarrow{R^1} C-A \qquad (1)$$

where A is a polyacetal copolymer residue and comprises 95 - 99.9 mole % of oxymethylene units and 0.1 - 5

mole % of oxyalkylene units represented by the following formula (2):

$$\begin{array}{c}
\mathbb{R}^2 \\
-\mathbb{C} \xrightarrow{j} \mathbb{O} \xrightarrow{j}
\end{array}$$
(2)

where R^2 is independently selected from the group consisting of hydrogen, an alkyl group, a substituted alkyl group, an aryl group and a substituted aryl group, and j is an integer selected from 2 to 6, the terminal group being represented by the following formula (3):

$$\begin{array}{c}
\mathbb{R}^{2} \\
-\mathbb{C} \xrightarrow{\mathbb{C}} \mathbb{C} \xrightarrow{\mathbb{C}} \mathbb{C} \xrightarrow{\mathbb{C}} \mathbb{C}
\end{array}$$
(3)

where R^2 and j have the same meanings as defined above, B is a hydrogenated polybutadiene having an iodine value of 20 g - $I_2/100$ g or less and containing 2 - 98 mole % of 1,2-bonds and 2 - 98 mole % of 1,4-bonds, said 1,2-bonds and 1,4-bonds being present either randomly or in block form, R1 is independently selected from the group consisting of hydrogen, an alkyl group, a substituted alkyl group, an aryl group and a substituted aryl group, and k is an integer selected from 2 to 6 where two ks are the same or different from each other.

9. A polyoxymethylene resin composition according to claim 1, wherein the polyoxymethylene polymer is a polyoxymethylene polymer whose thermally unstable terminal groups are stabilized by treating with at least one quaternary ammonium compound represented by the following formula (4):

 $[R^{3}R^{4}R^{5}R^{6}N^{+}]_{x}X^{-n}$ (4)

where R^3 , R^4 , R^5 and R^6 independently represent an unsubstituted or substituted alkyl group having 1 - 30 carbon atoms; an aryl group having 6 - 20 carbon atoms; an aralkyl group consisting of an unsubstituted or substituted alkyl group having 1 - 30 carbon atoms with at least one aryl group having 6 - 20 carbon atoms as a substituent; or an alkylaryl group consisting of an aryl group having 6 - 20 carbon atoms with at least one unsubstituted or substituted alkyl group having 1 - 30 carbon atoms as a substituent; and the unsubstituted or substituted alkyl group is straight, branched or cyclic; hydrogen atom of the unsubstituted alkyl group, aryl group, aralkyl group and aralkylaryl group may be substituted by halogen; n is an integer of 1 - 3; and X represents a hydroxyl group or a residue of carboxylic acid having 1 - 20 carbon atoms, a hydroacid, an oxoacid, an inorganic thio acid or an organic thio acid having 1 - 20 carbon atoms.

10. A polyoxymethylene resin composition according to claim 1, which additionally contains (III) 0.1 - 30 parts by weight of a lubricant and/or (I \dot{V}) 1 -



100 parts by weight of a polyolefinic resin based on 100 parts by weight of the polyoxymethylene polymer.

- 11. A polyoxymethylene resin composition according to claim 10, wherein the lubricant is a silicone-grafted polyolefinic resin.
- 12. A polyoxymethylene resin composition according to claim 11, wherein the polyolefinic resin of the silicone-grafted polyolefinic resin is at least one resin selected from the group consisting of a low density polyethylene, a linear low density polyethylene, an ethylene-vinyl acetate copolymer, an ethylene-methyl methacrylate copolymer and an ethylene-ethyl acrylate copolymer.
- 13. A polyoxymethylene resin composition according to claim 10, wherein the polyolefinic resin is a polyolefinic resin modified with an unsaturated carboxylic acid or an acid anhydride thereof.
- A molding obtained by injection molding, gasassist injection molding or extrusion molding the polyoxymethylene resin composition described in any one of claims 1-13, and, if necessary, subjecting the resulting molding to cutting process.
- 15. A molding according to claim 14, which is at least one member selected from the group consisting of a mechanical working component, an outsert molded resin component, a chassis, tray and a side plate.
- 16. A molding according to claim 15, wherein the mechanical working component is at least one member

selected from the group consisting of gears, cams, sliders, levers, arms, clutches, joints, shafts, bearings, key stems, key tops, shutters and reels.